



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,150	09/27/2004	Sung-Jin Kim	AP036-04	5035
29689	7590	12/12/2005	EXAMINER	
DAVID A. GUERRA 317 - 649 MARSH ROAD N.E CALGARY, AB T2E 5B4 CANADA			CLARK, AMY LYNN	
			ART UNIT	PAPER NUMBER
			1655	

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/509,150

Applicant(s)

KIM, SUNG-JIN

Examiner

Amy L. Clark

Art Unit

1655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09/27/2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-47 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1-8, drawn to a composition comprising an extract of Liriopsis tuber.

Group II, claims 9-11, drawn to a foodstuff comprising a composition comprising an extract of Liriopsis tuber.

Group III, claims 12-14, drawn to a beverage comprising a composition comprising an extract of Liriopsis tuber.

Group IV, claims 15-21, drawn to a method for protecting brain cells against damage caused by excitatory amino acids and oxidative stress in a mammal comprising administering a composition comprising an extract of Liriopsis tuber.

Group V, claims 22-28, drawn to a method for inhibiting AMPA-induced depolarization of a neuronal cell of a mammal comprising administering to a mammal a therapeutic amount of an extract of Liriopsis tuber.

Group VI, claims 29-36 and 47, drawn to a method of facilitating tyrosine phosphorylation of a hippocampal protein of a mammal comprising administering to in a mammal comprising administering a composition comprising an extract of Liriopsis tuber.

Group VII, claims 37-43, drawn to a method of inhibiting cholinesterase activity in the brain of a mammal comprising administering to in a mammal comprising administering a composition comprising an extract of Liriopsis tuber.

Group VIII, claim 44, drawn to using an extract of Liriopsis tuber for the preparation of a medicament for preventing or treating neurodegenerative diseases.

Art Unit: 1655

Group IX, claim 45, drawn to using an extract of *Liriopsis* tuber for the preparation of a medicament for preventing or treating dementia.

Group X, claim 46, drawn to using an extract of *Liriopsis* tuber for the preparation of a medicament for improving memory.

The inventions listed as Groups I-X do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Claims 12-14, at least, are anticipated by or obvious over Tashiro et al. (US Patent Number 5,589,182; 1996) For instance, Claims 12-14 are drawn a beverage comprising a composition comprising an extract of *Liriopsis* tuber and a sitologically acceptable additive. Tashiro teaches a health drink suitable for administration to a patient in need of treatment of Alzheimer's disease comprising a solution of a composition of a root of *Ophiopagon japonicus* (please note that *Ophiopagon japonicus* root is synonymous with *Liriopsis* tuber) containing glucose, starch, vitamin A and β -sitosterol (See Claim 28). Although Tashiro does not teach the protection of brain cells or improving memory, the claimed functional properties are inherent to the preparation taught by Tashiro because the ingredients taught by Tashiro are one in the same as disclosed in the instantly claimed invention of Applicant.

* Applicant is advised that the cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources. Should you receive inquiries about the use of the Office's PAIR system, applicants may

be referred to the Electronic Business Center (EBC) at
<http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amy L. Clark whose telephone number is (571) 272-1310. The examiner can normally be reached on 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on (571) 272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Amy L. Clark
AU 1655

Amy L. Clark
December 2, 2005

Michele C. Flood
MICHELE FLOOD
PRIMARY EXAMINER